

Work Order ID 165021

Friday, August 11, 2017 11:59:53 AM

165021

Page 1

Item ID: D2535 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Spring
Start Date: 8/14/2017 Start Qty: 25.00 ***25*** Cust Item ID:
Required Date: 8/28/2017 Req'd Qty: 25.00 ***25*** Customer:

Reference:

Approvals: Process Plan: DOB ^{DAS 13 9-89} Date: 2017/08/11 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2535	Rev A

100

0.00

100

Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 37396 Possible Supplier: Victoria Spring, 0.070 SS Torsion Spring

25 ^{DAS 13 9-89} DOB
2017/08/11

110

0.00

110

Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

0.50

Packaging

Ensure Material Release Note is attached

25x SP17-8-22

120

0.00

120

QC

QC6- All purchased or subcontracted products

Memo

0.00

Quality Control

Check dims to dwg

25 ^{DAS 38 9-89}

AUG 29 2017

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

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Page 2

Item ID: D2535

Accept

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Revision ID:

Stop ***NS2***

Item Name: Spring

Start Date: 8/14/2017 Start Qty: 25.00

25

Cust Item ID:

Required Date: 8/28/2017 Req'd Qty: 25.00

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

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Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location 5008	0.00							
130						25		SEP 01 2017	
Packaging	Memo	0.25							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	2.50						DAS 21 9-89	SEP 01 2017
Quality Control									

SEP 01 2017**DAS
21
9-89**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

Picklist Print

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Work Order ID: 165021

165021

Parent Item: D2535

D2535

Parent Item Name: Spring

Start Date: 8/14/2017

Required Date: 8/28/2017

Start Qty: 25.00

Required Qty: 25.00

Comments: IPP A99.04.19New Issue (From hand written IPP)DM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2535P *D2535P* Spring		Purchased	No			100	Each	0.0000	1 **	25 <u>25x Sp 17 8-29</u>			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

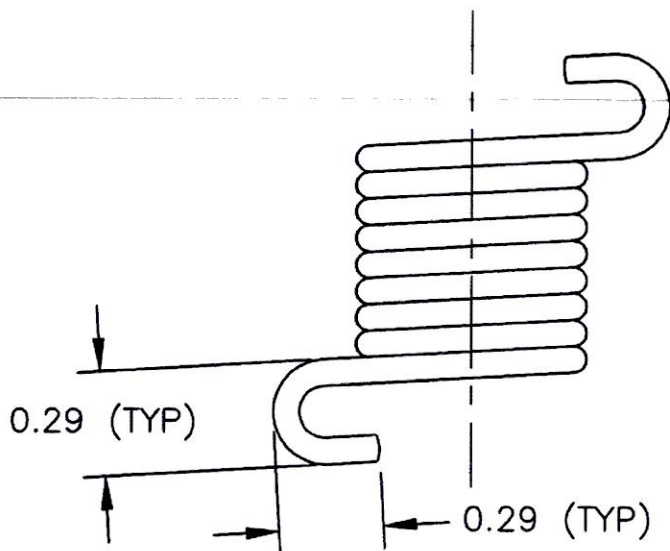
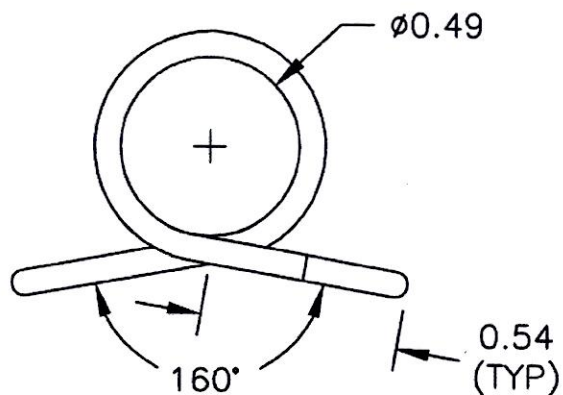
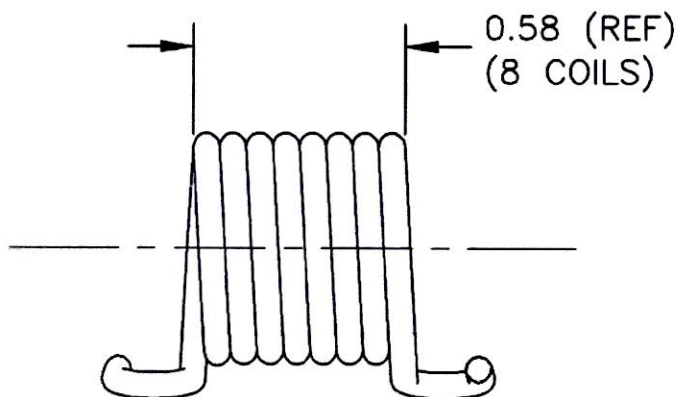
Work Order update only ☐

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Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				



DESIGN BW	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED KE	APPROVED <i>[Signature]</i>	DRAWING NO. D2535	REV. A SHEET 1 OF 1
DATE 99.04.08	TITLE SPRING SPEC CONTROL		SCALE 2:1
A	99.04.08	NEW ISSUE	

RELEASED
99.05.11 KE



SPECIFICATION CONTROL DRAWING

TENSION SPRING WITH 8 COILS (NO GAP BETWEEN COILS)

MATERIAL: AISI STAINLESS STEEL $\phi 0.070$

POSSIBLE SUPPLIERS: VICTORIA SPRINGS, P/N .070SS TENSION SPRING

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO37396**

Purchase Order Date 8/11/2017 3:27:54 PM

PO Print Date 8/11/2017

Page Number 1 of 2

Order From :
VICTORY SPRING LTD.
#2 6104 - 82 AVE.
EDMONTON, AB T6B 0E7
CA

VC-VIC002

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

2017/08/15

Contact Name
Vendor Phone 866 230 5312

Ship To Contact
Ship To Phone
Ship Via: FedEx Overnight collect
Ship Acct:

Buyer Diane Baker
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments		Promise Date				
	Delivery Comments						
1	D2535P	Spring	8/25/2017		25.00	\$4.74	\$118.50
			Yes		Each		
			8/25/2017				
	AS PER DWG D2535 REV. A B165021						

SPR 8-29.

DAS
38
9-88

Note:

8/11/2017



#2, 6104 - 82 Ave
Edmonton, AB T6B 0E7
t + 780 442 4020
e + accounts@victoryspring.ca

PACKING SLIP

Packing Slip: 38739
Date: Aug 24, 2017
Order Ref: PO37396

Sold to:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

Ship to:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

Shipped By: FedEx

Shipped Quantity	Backorder Quantity	Unit	Item No.	Description	Price
25		Each	VIC 1533	D2535P Spring - Torsion SPR 8-27.	4.74
Comment:					

DAS
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9-89

MATERIAL CERTIFICATION

REPORT FOR: Dart Aerospace Ltd.	DATE: 8/24/2017
PART/DRAWING #: VIC 1533 / D2535P	PO # PO37396
SPRING DESCRIPTION: Torsion Spring	QUANTITY: 25
MATERIAL GRADE: T302 Stainless Steel Wire Spring ASTM-313-03	
PROPERTIES:	
<u>Chemical</u>	<u>Physical</u>
Carbon: (C) 0.065	Size: 0.072"
Chromium: (Cr) 18.050	
Copper: (Cu) 0.420	Tensile PSI: 268,300 / 275,000
Manganese: (Mn) 1.190	
Molybdenum: (Mo) 0.330	
Nickel: (Ni) 8.020	
Phosphorus: (P) 0.029	Heat # KNAX00924
Silicon: (Si) 0.320	
Sulphur: (S) 0.001	
Mill Source: Gibbs Wire	

Certified by: Jeremy Burrowes - QA

Victory Spring Ltd. certifies this to be a true & accurate copy of the original contained in the company records.

CERTIFICATE OF CONFORMANCE

REPORT FOR : Dart Aerospace Ltd.	DATE: 8/24/2017
PART/DRAWING #: D2535P / VIC 1533	PO # PO37396
DESCR: Torsion Spring	QUANTITY: 25

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	SS302	yes	
Material diameter	0.07	0.072	
Coil I.D.	0.490	.489"	
Coil O.D.		.634"	
Number of Coils	8 ref	7.9	
Overall Length		1.109	
End Type	per dwg	yes	
Helix	RHW	RHW	

COMMENTS

Mill Certificate attached: Yes
Material Heat Number: KNAX00924

Inspected by: *Jeremy Burrowes*